CALIFORNIA COASTAL COMMISSION
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May 12, 2011

Crystal Spurr
Staff Environmental Scientist
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825

RE: Notice of Preparation (NOP) of Draft Environmental Impact Report (DEIR) for a 4,100 linear ft. rock revetment and beach nourishment project at Broad Beach; described in the notice dated April 15, 2011, as the "Broad Beach Restoration Project"

Dear Ms. Spurr:

Commission staff has reviewed the NOP for the DEIR dated April 15, 2011, and we appreciate the opportunity to provide comments for your consideration. The project involves permanent authorization of an "as-built" 4,100 linear ft. rock revetment consisting of 33,000 tons of rock rip rap that will be located seaward of 77 existing beachfront homes and implementation of a beach nourishment program along Broad Beach within the City of Malibu, Los Angeles County.

The proposed project is in follow-up to the Emergency Coastal Development Permit (CDP) 4-10-003 issued by the Executive Director of the Coastal Commission on January 25, 2010, for the installation of a ***temporary*** 4,100 linear ft. rock revetment consisting of 33,000 tons of rip rap on the sandy beach seaward of 77 existing beachfront residences at Broad Beach. The Emergency CDP granted temporary authorization for the rock revetment until January 25, 2013 (the Executive Director may extend this time by an additional two years for good cause). Thus, the applicant must either remove the temporary emergency revetment in its entirety or obtain a regular coastal development permit for its permanent authorization. Moreover, any application for a coastal permit for any form of permanent shoreline protection on site (such as the as-built revetment) must include a full evaluation of all other feasible alternative forms of shoreline protection that would serve to minimize adverse impacts to coastal resources. Such alternative forms of permanent shoreline protection would include, but not be limited to, construction of a vertical sea wall and/or relocation/removal of some or all portions of the revetment to the furthest feasible landward location in order to minimize adverse impacts to coastal resources.

At this preliminary stage, Staff is not prepared to make conclusions regarding alternatives until they have been fully evaluated and the subject application is before us. We anticipate that the EIR will provide a complete analysis that will accommodate our information needs. However, in the interest of early feedback, based on our review of the notice and familiarity with the subject site, we offer the following comments:

Project Description Clarification:
The project description, as described in the notice, must be clarified to identify that a primary component of the proposed project includes the request for permanent authorization of the "as-built" 4,100 linear ft. rock revetment on site. Although the notice states that the project includes "burying of an existing temporary emergency revetment", it does not clearly identify that the revetment on site is a temporary structure only and that permanent authorization of the shoreline protection device is now proposed. Pursuant to the terms and conditions of the above referenced emergency coastal permit, it is important to note that the temporary revetment on site must be removed in its entirety if permanent retention is not authorized pursuant to a new coastal development permit. This clarification is critical to ensure that the EIR includes an accurate description of the baseline of existing site conditions and to ensure that an accurate evaluation of the project's long-term adverse impacts (including both short-term and long-term adverse impacts resulting from the rock revetment) are evaluated.

Baseline Conditions:
The EIR should evaluate the impacts of each alternative relative to the shoreline that would exist if the proposed 4,100 linear ft. rock revetment was not present. Since the proposed project includes the request for permanent authorization of the temporary revetment, the baseline description of the subject site should not include the existing, "as-built", temporary rock revetment since it would not provide useful information regarding the impacts of the revetment and would preclude meaningful analysis of alternatives to the proposed permanent retention of the as-built temporary rock revetment. All alternatives must be considered from the same baseline. Therefore, since the existing revetment was authorized on a temporary basis only; it should not be considered as a permanent structure on the subject site for the purpose of establishing the baseline or existing site condition.

Identification and Analysis of Impacts:
Impacts related to the initial construction and permanent retention of the 4,100 linear ft. temporary rock revetment consisting of 33,000 tons of rip rap should be evaluated as part of the proposed project. This evaluation should include analysis of the long-term effects of the revetment on shoreline sand supply and coastal processes, public access and recreation, visual resources, and sensitive dune habitat and beach habitat. Moreover, the analysis should evaluate the effects of sea level rise relative the proposed rock revetment and beach nourishment project in order to adequately assess potential impacts.

Coastal Act Section 30235 acknowledges that seawalls, revetments, and other such structural or "hard" methods designed to forestall erosion also alter natural landforms and natural shoreline processes. Accordingly, Section 30235 limits the construction of shoreline protective works to those required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion. In this case, the NOP does not include any analysis that permanent shoreline protection is necessary to protect existing structures on site, particularly in relation to the proposed beach

nourishment component of the project. Thus, it is critical that the DEIR fully evaluate the need for permanent shoreline protection on site.

Shoreline protection devices, such as the proposed 4,100 linear ft. rock revetment, directly interfere with public access to tidelands by impeding the ambulatory nature of the mean high tide line (the boundary between public and private lands) during high tide and severe storm events, and potentially throughout the entire winter season. As the shoreline retreats landward due to the natural process of erosion, the boundary between public and private land also retreats landward. Construction of rock revetments and seawalls to protect private property fixes a boundary on the beach and prevents any current or future migration of the shoreline and mean high tide line landward, thus eliminating the distance between the high water mark and low water mark. As the distance between the high water mark and low water mark becomes obsolete the seawall effectively eliminates lateral access opportunities along the beach as the entire area below the fixed high tideline is inundated. The ultimate result of a fixed tideline boundary (which would otherwise normally migrate and retreat landward, while maintaining a passable distance between the high water mark and low water mark overtime) is a reduction or elimination of the area of sandy beach available for public access and recreation.

However, our staff notes that the NOP does not include any discussion or analysis of these above referenced potential adverse impacts to coastal resources that would result from the proposed rock revetment. Thus, since shoreline protection structures, such as the proposed revetment, result in a variety of adverse impacts on coastal resources, including adverse effects on sand supply, public access, coastal views, natural landforms, and overall shoreline beach dynamics on and off site, ultimately resulting in the loss of beach, it is critical that the DEIR fully evaluate the impacts to coastal resources that will result from the proposed revetment.

The proposed project also includes the placement of 600,000 cu. yds. of sand material on the beach at the project site for the purpose of beach nourishment but the NOP does not indicate whether beach nourishment activities would be limited to this one-time event or if the beach nourishment activities would continue with supplemental nourishment operations over a longer period of time in order to maintain a target beach width. The NOP indicates that the beach on site is losing approximately 35,000 cu. yds. of sand per year due to erosion. In respect to the ongoing beach erosion on site, the NOP concludes "[s]ince the sand loss rate in the Broad Beach area could average 35,000 cubic yards per year, it is anticipated that the Project maintenance would require placing high quality beach material on the Project site within the next 20 years.

However, it is not clear whether additional beach nourishment operations are proposed as part of this project. Although the proposed one-time placement of 600,000 cu. yds. of sand material would initially cover the rock revetment, our staff notes that as shoreline erosion continues to occur after the initial placement of sand material, it is likely that the beach would likely be eroded back to the proposed revetment or seawall. If the revetment becomes exposed, at some point in the future, it would also be subject

to wave action and result in significant adverse impacts to coastal resources. Moreover, the analysis should evaluate the effects of sea level rise relative the proposed rock revetment and beach nourishment project in order to adequately assess potential impacts. Thus, for the above reasons, it is important that the DEIR identify the duration of beach nourishment operations and specify what supplemental beach nourishment activities will occur after the initial placement of sand as part of the proposed project in order to fully evaluate the potential long-term adverse impacts that would result from the proposed 4,100 linear ft. rock revetment

In addition, the NOP indicates that the donor site for sand material has not yet been determined but that several different alternative locations, including both on and offshore sites, have been identified as potential sites. When the donor site is chosen, then biological resource surveys and sediment testing of the site should include: (1) grain-size, color, and chemical/contaminant analysis to determine that the dredge material would be compatible with the receiver sites' existing sediments consistent with the guidelines specified by the U.S. Army Corps of Engineers (ACOE) and (2) biological surveys which indicate that the subject dredge area would not constitute environmentally sensitive habitat area (ESHA) and would avoid significant disruptions to marine biota to the maximum extent feasible. In addition, potential impacts to shoreline and intertidal species at the receiver site should also be fully evaluated. The DEIR should also include a detailed analysis of surfing impacts from both the proposed sand excavation and the proposed sand placement.

Further, portions of the as–built revetment have been constructed within several recorded lateral public access easements. However, the NOP does not include any discussion or analysis of the adverse impacts to public access and recreation that will result from the proposed rock revetment. Although the proposed one-time placement of 600,000 cu. yds. of sand material would initially cover the rock revetment, our staff notes that as shoreline erosion continues to occur after the initial placement of sand material, it is likely that the beach would likely be eroded back to the proposed revetment or seawall.

Thus, it is important that the DEIR fully identify all adverse impacts to public access and recreation and evaluate potential mitigation measures to offset these adverse impacts. Further, the analysis should address the potential for impacts to occur in the event that the beach nourishment program fails to establish a wider beach or in the event that the rock revetment becomes temporarily or permanently exposed to wave action resulting in a substantially more narrow beach. Under high tide events, it is possible that all portions of the sandy beach would become impassable to pedestrians due to the obstruction of the revetment. The DEIR analysis should include, but not be limited to, an evaluation of such potential mitigation measures as providing a uniform lateral public access easement over the entire reach of the project site from the mean high tide line to the base of the rock revetment. During conditions when the revetment would be covered in sand, then it would be appropriate to provide lateral public access to the toe of the dunes, if the dunes were located further landward than the revetment. Additional mitigation measures should be evaluated to ensure that public access to and along the

coast is maintained, including the provision of a public trail along the top of the revetment that would be available for public use in the event that during such conditions when the sandy beach is not passable due to inundation.

Alternatives Analysis:
Section 30235 of the California Coastal Act provides that shoreline protective devices may be permitted **only** when both of the following two criteria are met: (1) the device is required to serve coastal-dependent uses or to protect existing structures or public beaches provided that these areas/structures are in danger from erosion and (2) the device is designed to eliminate or mitigate adverse impacts on local shoreline sand supply. The Coastal Act provides these limitations because shoreline structures can have a variety of adverse impacts on coastal resources, including adverse effects on sand supply, public access, coastal views, natural landforms, and overall shoreline beach dynamics on and off site, ultimately resulting in the loss of beach.

In this case, the NOP did not include an evaluation of the need for permanent shoreline protection to protect the existing residential development on site. Moreover, the NOP identified only a limited range of alternatives to the proposed revetment including: (1) retention of the as-built revetment, (2) adding more rock to the as-built revetment, (3) construction of an artificial reef with beach nourishment, and (4) the "no project" alternative. Thus, it will be critical that the DEIR include both: (1) a full evaluation of both the need for permanent shoreline protection along all sections of the project reach where the revetment is proposed and (2) a complete evaluation of all feasible alternatives to permanent retention of the as-built temporary revetment that would serve to reduce adverse impacts to coastal resources to the maximum extent feasible.

The alternatives analysis should include an evaluation of all alternatives that would allow for a shoreline protection device on site to be located as far landward as feasible and designed in a manner that would minimize adverse impacts to coastal resources. The alternatives to be evaluated should include, but not be limited to: beach nourishment with no permanent shoreline protection device; relocation of the revetment to a further landward location; landward relocation of the downcoast portion of the revetment where the beach is wider; and the use of a vertical seawall in order to minimize the footprint of the structure on the sandy beach. Specifically, since a seawall option would be viable for this beach area, the long-term option of placing a vertical wall further inland of the proposed location for the rock revetment (including installation of a wall immediately seaward of the residences to be protected) should be considered as an option in conjunction with the proposed beach and dune restoration. The beach nourishment and dune restoration could still be constructed, as planned, but with the seawall as the last line of defense instead of the revetment.

In addition, where segments of the revetment or vertical seawall may be necessary because an on-site septic system/leach field is located on the sandy beach seaward of an existing residence, alternatives should be evaluated that would include relocation of septic systems to further landward locations and/or landward of the residence in order to allow for the furthest landward location of the revetment or vertical seawall. Further,

alternative methods of sewage disposal that would eliminate the need for on-site septic systems/leach fields on individual beachfront lots, such as, but not limited to, a use of a single sewage package treatment plant that would serve all the homeowners within the project area should be evaluated. Moreover, the removal of existing private patios, private landscaping, lawns, and accessory structures located on the sandy beach seaward of these residences would allow for the construction of a shoreline protection device in a further landward location than the proposed revetment while still protecting the primary residence on each site. Thus, the DEIR should fully evaluate all feasible alternatives to the proposed revetment in its as-built location, including but not limited to, the above referenced alternatives.

Public Lands:

As discussed above, portions of the proposed "as-built" revetment have been constructed within several recorded lateral public access easements, which would otherwise be available for public use. Moreover, it appears that the rock revetment is located on, or at least partially, on state tide lands. Since the proposed development will be located partially, or wholly, on public lands, the DEIR should address the public's right to access public lands and the public's ownership rights. In particular, it should be clearly stated that in the event that the proposed beach nourishment program is successful in creating a widened beach within the project area as a result of placing fill on public trust lands, including sand for the purpose of beach nourishment, then those new areas of beach would be public lands available for public use and would not be subject to private ownership interests.

I hope this information will assist the California State Lands Commission in completing its EIR and in the applicant's subsequent submittal of a CDP application to the Commission pursuant to the requirement of Emergency CDP 4-10-003-G.

Sincerely,

Steve Hudson

Steve Hudson
District Manager